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TRANSPORT TRENDS AND POLICY AND TRANSPORT ECONOMICS

Studies on transport economics and track costs
undertaken by other organizations

Addendum 1

Transmitted by the European Commission (EC)

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Phare

Multi-country transport programme

Costs and benefits of enlargement

Contract No 98-0422

Executive summary

December 1999

Halcrow

Costs and Benefits of Enlargement: Executive Summary

1. Costs and Benefits from accession

Countries seeking to accede to the EU will incur costs and obtain benefits in the transport sector from three broad sources - legislation, institutions and infrastructure.

The impacts of transposing EU legislation within the competitive and social frameworks and making the institutional changes to ensure it is fully complied with will be different.

The competitive framework - legislation in relation to market access, state aid, competition and fiscal harmonisation - will create a larger market and remove border delays, increasing the efficiency of international transport. Increased competition in some areas will create further efficiencies driving down costs, and the number of transport sector jobs.

The social framework has particular impacts for the technical quality of the resources used in transport and the way in which they are used. The social framework will add to costs. Higher quality resources maintained to a higher standard (e.g. safer, less polluting and better equipped vehicles, better trained staff and higher levels of financial resources to guarantee corporate stability) will generally be required. In most of the accession countries, vehicle drivers will have to work fewer hours. More workers will have to be employed in the transport sector and additional costs will be imposed on transport system providers, operators and regulators.

Infrastructure suited to the demands of the single market is required if the benefits of accession are to be exploited effectively. The Transport Infrastructure Needs Assessment (TINA) process has defined infrastructure schemes that construct new infrastructure or reconstruct or upgrade existing infrastructure in line with the wider priorities in an enlarged Union.

The investment burden of the network is considerable. The indicative ceiling of feasible expenditure, set at 1.5% of forecast GDP, is expected by TINA to be exceeded in five of the ten accession countries - Latvia, Lithuania, Romania, the Slovak Republic and especially Bulgaria.

2. Current Conditions in the Accession Countries

The accession countries have lower incomes than current member states, so are less able to afford the higher standards required by EU legislation. Per capita GDP varies from 23% of the EU average in Bulgaria and 27% in Latvia to 64% in the Czech Republic and 68% in Slovenia.

The transport and communication sector accounts for 6-10% of GDP in all the accession countries except Latvia where it is 17%.

The road and rail sectors dominate transport activity in tonnes and tonne km carried in different accession countries. Tonne km by rail exceed those by road in the Baltic States, Hungary and the Slovak Republic. In all accession countries the movement of passengers and freight is shifting towards road and away from rail.

In road transport, a common feature in the accession countries is a difference in standards and costs between international and domestic transport. International truck costs vary around €0.6-0.7 per kilometre compared with an EU average of €0.85. Personnel costs in the accession countries are lower: depreciation and interest costs are often higher because of the higher costs of capital. International truck operations generally meet EU standards.

Typical domestic truck costs are lower, around €0.35-0.6 per kilometre, because old vehicles are used, crews work long hours and financial costs such as depreciation, interest and insurance are often not fully allowed for. Many small truck operators in domestic markets will not survive the additional costs of accession.

Transport systems in the accession countries are generally less efficient in their use of resources than comparable systems in existing Member States. In the rail sector, except in the Baltic States, where the railways carry large volumes of transit traffic, labour efficiency is worse than on EU railways in some cases by a factor of two or more. In the air sector, available seat kilometres per employee are typically lower in accession country airlines than in comparable Member State airlines.

3. Impacts of Legislation

Some of the costs associated with the legislation will be one-off costs which have to be incurred just once, prior to accession. Other costs and benefits will have a continuing impact.

One-off Costs

One-off costs will be greatest in the roads sector. They arise from three sources: from fitting tachographs and speed limiters and from replacing vehicles. Vehicle replacement will principally be of Eastern European built trucks over 10 years old, which would fail emissions tests and some roadworthiness tests. More than 25% of the truck fleet is expected to have to be replaced in the Baltic States, Bulgaria and Romania: less than 25% in the other accession countries.

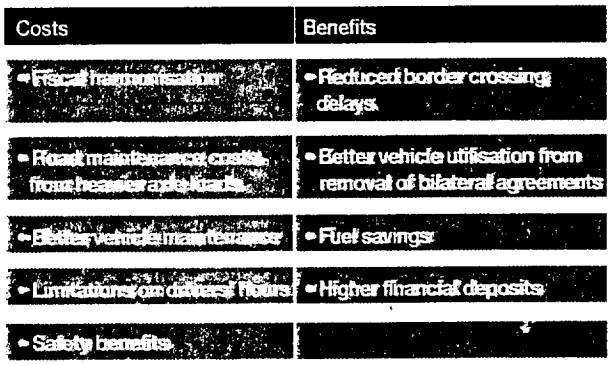
In other sectors, the only one-off cost of any significance will be in the replacement of Chapter 2 aircraft. Costs could be reduced by efficiencies in the utilisation of aircraft or by a reduced service structure.

As a percentage of one year's transport sector GDP, one-off costs range from 0% in Slovenia, where there is general compliance with EU standards, to over 50% in Lithuania and Estonia and over 200% in Bulgaria.

Continuing Costs and Benefits

Continuing costs and benefits are very much higher in the roads sector than in any other. They will arise from a number of sources.

Principal Sources of Costs and Benefits



Even allowing for utilisation and efficiency savings, the roads sector alone will bear additional annual costs in excess of 5% of transport sector GDP in Latvia, Poland and Romania. There will be net savings in Slovenia and the Czech Republic, and in Bulgaria and Lithuania where the large international truck fleets could enjoy substantial efficiency savings.

Benefits dominate in other sectors. The air sector will benefit from efficiency savings and liberalised groundhandling: there could be efficiency gains in rail operations. In inland waterways, maritime and combined transport the financial impacts of accession will be small in aggregate.

4. Impacts of Institutions

Without adequate institutions legislative change can become meaningless, but it may be in relation to institutions that change is most difficult to achieve.

Institutional costs are small compared to those from legislation and infrastructure. Relatively large costs will be incurred from the introduction of EU Environmental Impact Assessment procedures in Romania and Estonia. Significant one-off costs will arise from dangerous goods regulations and enforcement more generally. Large continuing costs will be associated with dangerous goods and access to the profession regulations. Costs will also be incurred from the increased employment necessary to ensure transport statistics meet Eurostat requirements.

5. Impacts of Infrastructure

An outline appraisal of the TINA infrastructure networks across the accession countries as a whole identified discounted costs of €56 billion and discounted benefits of €51 billion.

Road schemes, which account for 54% of discounted expenditure have a positive average benefit:cost ratio of 1.1:1. Rail schemes, which account for 38% of discounted expenditure, have a ratio of only 0.7:1.

Benefit:cost ratios for road schemes are particularly high in Latvia and Lithuania where the emphasis is on the rehabilitation of existing roads. In Romania and Bulgaria the emphasis is on developing large motorway networks which give a lower rate of return.

For rail schemes, the largest expenditure is planned in Poland, in part to develop a high speed rail network. This gives low benefit:cost returns. In most other countries the emphasis is on

rehabilitating the existing network and eliminating the worst of the speed restrictions which result from a previous lack of investment and maintenance. These projects give higher benefit: cost ratios.

6. Summary of Impacts

The principal costs and benefits in the transport sector from accession are summarised as net present values, embracing the impacts of legislation, institutions and infrastructure. Estimates are presented with and without possible efficiency gains in the utilisation of trucks, rail operations and air transport.

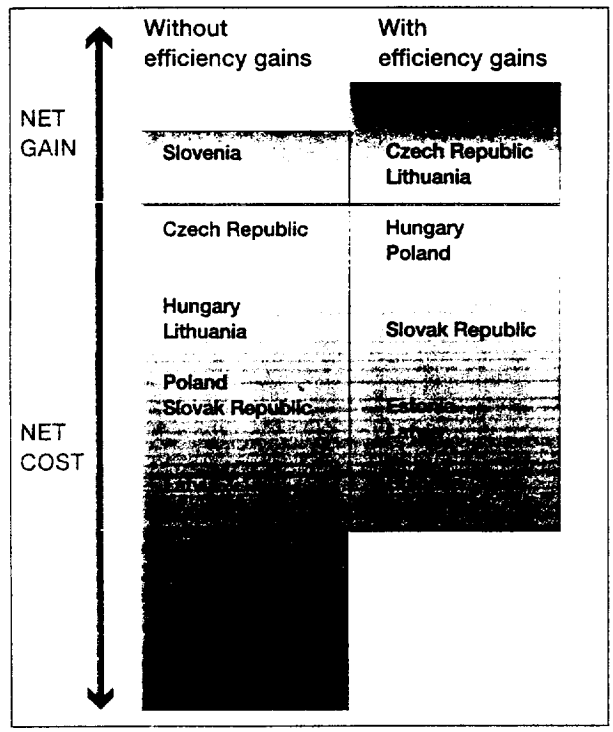
Summary of Impacts, Euro billion, present value

	Without efficiency gains	With efficiency gains
Bulgaria	-6.3	-1.7
Czech Republic	-1.2	+3.2
Estonia	-1.1	-0.6
Hungary	-3.4	-0.8
Latvia	-0.9	-0.7
Lithuania	-0.9	+0.1
Poland	-14.8	-3.7
Romania	-10.2	-6.4
Slovak Republic	-2.2	-1.0
Slovenia	+1.7	+3.0
Total	-39.3	-8.6

Adopting EU legislation dominates the overall effect: it adds to costs in all countries except Slovenia. When possible efficiency savings are taken into account, there are net benefits in the Czech Republic and Lithuania as well as Slovenia.

The figure shows, in a schematic way, net costs or benefits in the transport sector in relation to GDP. Net costs are highest in Bulgaria and Romania.

Some impacts, principally benefits, have not been measured in money terms. There will typically be additional jobs in the transport sector: restrictions on drivers' hours will typically outweigh efficiency gains, resulting in more drivers being required to provide existing services. There will be environmental gains from reduced emissions and reduced aircraft noise. Safety gains will arise from a number of sources. The quality of transport services in the accession countries will improve.



7. Conclusions

Accession to the EU will impose net costs on the transport sectors in accession countries rather than generate net benefits. The additional costs of meeting EU standards will typically outweigh the efficiency gains likely to materialise.

Adopting EU standards will impose costs on the transport sector but will result in improved transport services and external benefits - reduced emissions and noise levels and improved safety. The number of jobs in the transport sector is likely to increase.

The major costs will fall on providers and operators of road transport, particularly on those operating domestic services. The structure of domestic road transport operations, of trucks and buses, will change in response to the additional costs of meeting EU standards.

Efficiencies are likely in the road and air sectors: there may be efficiencies in the rail sector, but these will depend on institutional change and the ability of management to embrace a new commercial focus.

Institutional change will be key to enforcing the implementation of EU legislation and to the realisation of potential efficiency gains.

Costs and Benefits of Enlargement: Executive Summary

Costs and Benefits of Enlargement: Executive Summary

The work reported here was carried out by a consortium led by Halcrow Fox, on behalf of the European Commission's Phare Multi-Country Transport Programme.

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Czech Republic	Transconsult
Estonia	IB Stratum
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Latvia	Celuprojekts
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